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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DENNIS M. HILTON, MICHAEL D. MORGAN,  
ROBERT PAUL, KARL D. TAUB,  
ROBERT S. YOUNG and RICKY N. BASTARACHE

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Appeal 2008-2594  
Application 10/657,494  
Technology Center 1700

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Decided: July 18, 2008

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Before EDWARD C. KIMLIN, JEFFREY T. SMITH, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's  
decision rejecting claims 1-11. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

## I. BACKGROUND

The invention relates to a dry mixture for forming a fireproof composition. The dry composition comprises a hydraulic binder, a foam stabilizing agent, and a set retarder. The composition is said to be adaptable to a pumpable slurry upon addition of water for application to a steel substrate. (Spec. 4 and 10). Claim 1 is illustrative of the subject matter on appeal:

1. A dry mixture for forming a fireproofing composition adapted to be spray applied to a steel substrate, said dry mixture comprising a hydraulic binder, a foam stabilizing agent, and a set retarder, said dry mixture providing, upon the addition of water, a pumpable slurry, and upon the application of mechanical turbulence to said pumpable slurry, a settleable foam capable of spray application to a steel substrate and which, after spray application is adherent to said substrate, said foam stabilizing agent being present in said dry mixture in an amount effective for stabilizing said settleable foam.

The Examiner relies on the following prior art references to show unpatentability:

Ayambem (*18)	2002/0038618 A1	Apr. 4, 2002
Ayambem (*185)	6,436,185 B1	Aug. 20, 2002
Ayambem (*204)	2003/0105204 A1	Jun. 5, 2003
Ayambem (*291)	6,645,291 B2	Nov. 11, 2003

The claims on appeal have been rejected as follows:

1. Claims 10 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

2. Claims 1-8, 10 and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the Ayambem ‘185, ‘291, ‘618, and ‘204 references individually.
3. Claim 9 stands rejected under 35 U.S.C § 103(a) as unpatentable over the Ayambem ‘185, ‘291, ‘618, and ‘204 references individually in view of Appellants’ admissions in the Specification.

*Indefiniteness under 35 U.S.C. § 112, ¶ 2*

Claims 10 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner contends that the amount of stabilizing agent contained in the dry mixture is indefinite. The Examiner contends that the claims define the suitable amount of stabilizing agent based upon a component (water) which is not included in the dry mixture.

For this ground of rejection, the issue before us is: Is there is a reasonable basis to believe that the person of ordinary skill in the art would not be able to determine the scope of the claim? We answer this question in the affirmative.

“The legal standard for definiteness [under the second paragraph of 35 U.S.C. § 112] is whether a claim reasonably apprises those of skill in the art of its scope.” *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994). The inquiry is to determine whether the claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity. The definiteness of the language employed in a claim must be analyzed not in a vacuum, but in light of the teachings of the particular application. *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971). This is especially true in a situation involving a relative claim expression since the Specification must provide some standard for defining or measuring its meaning. *Seattle Box*

*Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984).

Appellants contend that the effective amount of stabilizing agent added to the dry mixture is based upon “the knowledge that water will eventually be added to create a slurry. That water does not form part of the claimed dry mixture does not render indefinite the amount of stabilizing agent, since those skilled in the art can readily determine the amount of water necessary to form the slurry.” (App. Br. 4).

After consideration of the present record, we determine that a person of ordinary skill in the art would not have recognized the scope of the disputed relative claim language. Appellants have not directed us to specific portions of the Specification from which a clear determination as to the suitable amount of stabilizing agent for the dry composition could be determined. That is, we have not been directed to portions of the Specification that provide guidance to determine the appropriate amount of stabilizing agent suitable for the dry composition. The addition of water to a dry composition results in a composition that is no longer dry. Appellants have not refuted the Examiner’s statement that the suitable amount of water for use with the dry composition has not been specified in the Specification. (Ans. 4). Rather, Appellants contend that the amount of stabilizing agent is based upon a predetermined amount of water to be added to the dry mixture at a later point. (App. Br. 4). However, the claimed invention is directed to a dry mixture that excludes water.

A person of ordinary skill in the art forming a dry composition comprising a stabilizing agent would not understand what amount of stabilizing agent contained in that composition would infringe the claimed

invention. *See All Dental Prodx, LLC v. Advantage Dental Products, Inc.*, 309 F.3d 774, 779-80 (Fed. Cir. 2002) (“The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, *e.g.*, competitors of the patent owner, can determine whether or not they infringe.”).

*Obviousness under 35 U.S.C. § 103(a)*

We have thoroughly reviewed each of Appellants’ arguments for patentability.<sup>1</sup> However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner’s rejections.<sup>2</sup>

Implicit in our review of the Examiner’s obviousness analysis is that the claim must first have been correctly construed to define the scope and meaning of each contested limitation. *See Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997). During prosecution before the Examiner, the claim language should be given its broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account any definitions or enlightenment

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<sup>1</sup> Appellants’ arguments (and, therefore, our analysis) focus on independent claim 1. When addressing the rejections of claims 1-8, 10 and 11, Appellants have not provided separate arguments addressed to these specific claims. Appellants’ arguments for separately rejected claim 9 will also be addressed.

<sup>2</sup> Appellants have limited their discussion to the Ayambem ‘185 reference as representative of all the cited prior art. Therefore we will likewise limit our discussion to this reference.

contained in the written description of Appellants' Specification. *See In re Morris*, 127 F.3d 1048, 1054, (Fed. Cir. 1997). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc).

Applying the preceding legal principles we determine that the claims on appeal are directed to a dry composition comprising a mixture of a hydraulic binder, a foam stabilizing agent, and a set retarder.

We will treat the claim language "upon the addition of water, a pumpable slurry, and upon the application of mechanical turbulence to said pumpable slurry, a settable foam capable of spray application to a steel substrate and which, after spray application is adherent to said substrate, said foam stabilizing agent being present in said dry mixture in an amount effective for stabilizing said settable foam," as a property or characteristic of the dry composition. Thus, the Examiner can establish a *prima facie* case of unpatentability identifying a prior art reference that describes or suggests a dry mixture having the property comprising hydraulic binder, a foam stabilizing agent, and a set retarder.

The first obviousness issue presented is: Did Appellants identify reversible error in the Examiner's rejection of claims 1-11 under § 103? We answer this question in the negative.

The Examiner finds that Ayambem describes a joint composition comprising a dry mixture comprising hydraulic binder, a foam stabilizing agent, and a set retarder. (Ans. 5). Ayambem column 7 discloses that the dry components of the joint compound can be prepared separate from the liquid compound. (*See* Ayambem '185, col. 7, 42-62). The Examiner

properly determined that this mixture of dry components meets the claimed invention since it is reasonable to conclude that the reference composition exhibits the recited property upon the addition of an appropriate amount of water. (Ans. 9).

Appellants have not disputed the Examiner's findings. Rather, Appellants contend that there is no indication that the joint composition of Ayambem is pumpable and forms a settable foam capable of a spray application. (App. Br. 8-9). Appellants' contention is not persuasive for the reasons set forth above, i.e., the reference composition comprise the claimed components. It has not been disputed that Ayambem describes a dry mixture comprising hydraulic binder, a foam stabilizing agent (PVA), and a set retarder. The claimed invention does not set forth amounts of the specific components that distinguish the claimed invention from Ayambem. Appellants have not directed us to evidence that establishes that the dry composition described by Ayambem is patentably distinct from the claimed invention. That is, Appellants have not directed us to evidence that establishes that the dry composition of Ayambem, upon addition of water, does not possess the claimed properties.

Appellants have not substantiated their argument that the polyvinyl alcohol disclosed in Ayambem is insufficient to render obvious the amount effective for stabilizing foam. (App. Br. 7). It would appear that the amount of foam stabilizing agent required to stabilize the composition is dependent upon the amount of the other components contained in the composition. The claimed invention does not set forth the amount of the specific components.

We procedurally reverse the rejection of claims 10 and 11 over the Ayambem references. We have carefully considered the subject matter



defined by these claims, however, for reasons stated supra in our discussion of the rejection under the second paragraph of 35 U.S.C. § 112, no reasonably definite meaning can be ascribed to certain language appearing in the claims. As the court in *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970) stated:

[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art. If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious-the claim becomes indefinite.

In comparing the claimed subject matter with the applied prior art, it is apparent to us that considerable speculations and assumptions are necessary in order to determine what in fact is being claimed. Since a rejection based on prior art cannot be based on speculations and assumptions, see *In re Steele*, 305 F.2d 859, 862 (CCPA 1962), we are constrained to reverse, pro forma, the Examiner's prior art rejections of claims 10 and 11. We hasten to add that this is a procedural reversal rather than one based upon the merits of the prior art rejections, as noted above.

Claim 9 stands rejected under 35 U.S.C § 103(a) as unpatentable over the Ayambem '185, '291, '618, and '204 references individually in view of Appellants' admissions in the Specification, page 7. In particular, the Specification reveals that commercially available polyvinyl alcohol powders are suitable for the claimed invention. Appellants acknowledge that a person of ordinary skill in the art would have sufficient skill to select the appropriate commercially available polyvinyl alcohol powders for use in the claimed invention. (Spec. 7).

It is not disputed that Ayambem discloses the use of polyvinyl alcohol in the formation of the dry components of the joint compound. A person of ordinary skill in the art would have sufficient skill to select the appropriate polyvinyl alcohol for utilization in the disclosed invention. Appellants have not argued that polyvinyl alcohol having the claimed particle size was not suitable for or recognized to be used in the joint composition of Ayambem. A claimed invention is unpatentable if the differences between it and the prior art “are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007). The question to be asked is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 1740. Appellants have not directed us to evidence of unexpected results for use of polyvinyl alcohol having a particle size of 80 to 400 microns.

For the foregoing reasons and those presented in the Answer, we sustain the prior art rejections of claims 1-9. As a final point, we note that Appellants have not relied upon evidence of unexpected results in response to the Examiner’s obviousness rejections.

### III. DECISION

The rejection of claims 10 and 11 under 35 U.S.C. § 112, second paragraph, is affirmed. The prior art rejections of claims 1-9 are affirmed. The prior art rejections of claims 10 and 11 are reversed.

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No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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